Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks	EB Docket No. 06-119 WC Docket No. 06-63

DECLARATION OF DAVID CUTRER

I, David Cutrer, do hereby state:

1. I am Chief Technology Officer and Co-Founder of NextG Networks, Inc. ("NextG"). NextG is a provider of cutting edge telecommunications services and networks that empower wireless providers to offer more reliable telecommunications services and greater capacity and coverage. This Declaration is being submitted in support of NextG's Petition For Reconsideration and Petition For Stay of the Commission's cell site back up power rule, 47 C.F.R. § 12.2.

2. I hold a Ph.D. and Masters degrees in Electrical Engineering from the University of California at Berkeley, and a Bachelor of Science degree in Electrical Engineering and Applied Physics from the California Institute of Technology.

3. Prior to co-founding NextG, I was co-founder, Chief Technology Officer, and Vice President of Engineering for LGC Wireless, Inc. I have been involved in the telecommunications industry, and particularly the wireless telecommunications industry, for over 10 years. Through my academic and employment experience, I have over 12 years of experience

with the design, construction, and operation of both wireline and wireless telecommunications systems.

4. In my role at NextG, I am intimately familiar with the technical and economic aspects of NextG's network and provision of telecommunications services.

5. Wireless telecommunications networks and service offerings have experienced tremendous growth in the past 10 years. During this time, wireless service providers have attempted to meet increased demand by building more wireless antenna "sites" that are traditionally mounted to either towers or rooftops of tall buildings in metro areas. The need for these cellular sites is growing at a rate outpacing the ability of the industry to supply it. While in 2001 there were roughly 120,000 cellular sites in the U.S. for all the carriers, the industry was expected to require more than 200,000 sites in 2005. The traditional solution to this problem is to continue to build out cellular sites using the historic model. That is, find a location that can handle a full complement of cell site equipment, resolve zoning issues, acquire the real estate, and then build the site. Despite the real construction challenges of building such a site, they are dwarfed by the real estate and zoning difficulties. Each location requires 200 square feet of real estate and the placement of a large set of antennas, an often even greater challenge. The difficulty in finding suitable locations for these sites is one of the root causes of the site deficit.

6. As a result, wireless service quality continues to suffer on many fronts including poor coverage ('dead spots'), blocked calls, and low bandwidth making many potential data applications infeasible. As wireless customers have become more dependent on their phones, they have also become more demanding of network quality of service.

7. NextG Networks has invented and developed a new telecommunication service offering based on using fiber-optic cable and small antennas mounted in the public rights-of-way (ROW), on infrastructure such as lamp posts and utility poles. Using this fiber network and ROW infrastructure, NextG Networks has effectively "split" a traditional cell site, keeping only the necessary pieces in the remote antenna location, and allowing the rest of the cell site equipment to be placed in a centralized facility.

8. NextG provides its telecommunications service by receiving communications signals that its customer hands off to NextG and then transporting those signals over its fiber optic facilities. This handoff and transport takes place at and through equipment configurations called "Nodes" that are located on utility or streetlight poles located in the public rights-of-way or in private utility easements. The equipment comprising a typical "Node" in NextG's network includes a small, low-power antenna, laser and amplifier equipment for the conversion of radio frequency signals ("RF") to optical signals (or from optical to RF), fiber optic lines, and associated equipment such as power supplies, all of which are operated, controlled, managed, or maintained by NextG.

9. Upon handoff from its customer, NextG converts RF signal to light waves and transports the communications through NextG's fiber optic network to a distant point that is typically, but not always, an aggregation point for NextG's communications called a "Base Station" or "Hub." The Hub is a central location that contains such equipment as routers, switches, and signal conversion equipment. The Hub is typically installed in a building located on private property. NextG converts light waves back to RF signals and hands the

communication signals back to its customer at the Hub, where the communications signals are received by the customer's network.

10. NextG's Nodes are currently powered using commercial power in one of three ways. In the case of Nodes on utility poles, NextG obtains commercial power from a secondary drop. This power can either be a metered service (with a meter installed on the pole or a pedestal), or with some utilities we have an agreement for "unmetered" service. In the case of streetlights, NextG connects power directly to the commercial power at the pole. Finally, in some cases, NextG uses a low AC voltage feed to a Node from a remote supply power distribution point (up to approximately 1 mile). Any NextG network elements at the Node location are powered as described above. The NextG hub is either powered from the Operator's power plant, or we install our own commercial power service at the hub. If any one of the Nodes loses power, the NextG network operations center will receive notification of the power outage, open a trouble ticket, and immediately contact our carrier customer. Depending on the agreement between NextG and the customer, NextG may undertake to promptly remedy the outage.

11. Nodes only cover small geographic areas, so if power is lost only a small area is affected. A typical Node covers between 0.1 and 0.2 square miles depending on design requirements and the characteristics of the area covered. A large percentage of NextG's Nodes are located in areas that also receive coverage from some other source (such as macro cells/towers). The NextG DAS solution is used either to provide coverage where towers have traditionally been unable to do so (in so called "dead spots" or "shadow" areas), or is used to enhance capacity. In the "coverage" application, there would typically not be strong coverage

from surrounding macro cells. However, only in very rare cases would there be no coverage whatsoever, and in those cases, the wireless user would likely be able to receive a signal just a short distance away, once they were out of the "shadow" or "dead spot." In the "capacity" type application, there is often good complementary coverage from the macro network.

12. A very limited amount of back up power is currently deployed by NextG at its Nodes. More than 50% of NextG's Node sites do not currently have any form of back up power, and of those Nodes that do have some back up power, they typically have a 1-hour battery back-up solution installed. At the hubs, the majority of NextG's hub racks are powered with DC power from the operator's power plant, which at a minimum has battery back up and in many cases has generator back up. In a few systems, NextG runs its hub racks from AC power, but NextG uses commercial UPC units to provide back up for the host racks.

13. None of NextG's currently installed Nodes or Nodes that are have been engineered and are in the process of installation have eight hour back up at the Node.

14. NextG's current understanding is that in order to provide back up full power for eight hours at its DAS Nodes, the most practical solution possible would be batteries. However, in order to provide back up for 8 hours at full power, the equipment enclosure box would be approximately four and a half feet high and would weigh approximately 350 pounds. Attached to my Declaration as Attachment 1 are copies of equipment specifications for the Novus Alpha Micro XL3 equipment cabinet and the Alpha "AlphaCell GXL" battery. To provide 8 hours of full power would require four of the 88 Amp-Hour GXL180 batteries, which would require the Alpha Micro XL3 cabinet.

15. Assume that it even could overcome local legal, regulatory and practical barriers and pole attachment barriers, the total cost for NextG to retro-fit all of its Nodes to comply with an eight hour backup power requirement would be at least $25,000 per Node. NextG's ICB customer agreements do not provide for such back up power and the pricing is not designed to recover such a cost. Thus, NextG would also need to obtain the agreement of its customers to the additional cost.

I declare under penalty of perjury that the statements contained in this Declaration are true and correct.

David Cutrer

Dated July 30, 2007